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THE FARM INDEX

U.S. Department of Agriculture

Nov./Dec. 1974

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Cultural Crossroads: American Indians in the '70's

Current huge cattle inventories have set the stage for record slaughter and total beef output.

Slaughter this year will top 35 million head—just a notch above the 1972 record but 8 percent over last year. All increases over last year will be in cows and nonfed steers and heifers, as fed cattle slaughter will slip 7 percent.

The large cattle supplies will keep prices on the low side in 1975. But prices for slaughter cattle will get some help from sharply curtailed pork and broiler output. Too, higher consumer incomes next year will bolster meat demand.

The cattle feeding industry remains in the doldrums, smarting from tight supplies and steep prices for feed grains. Feeder calves in November brought only half their year-earlier prices and returns will continue low for some time.

The depressed feeder calf market will encourage heavy calf slaughter as packers vie with feeders for the available supply. Calf producers stand to benefit in the long run, though, as higher slaughter rates will eventually reduce beef supplies and strengthen prices.

Weather will play a leading role in upcoming beef supplies. A severe winter followed by a dry spring and summer would force a greater number of cattle to slaughter than now expected, pushing 1975 beef output well beyond the 7-percent gain already anticipated. But ideal weather would keep cattle on grass longer and temper 1975 gains in beef output.

Penned in by tight feed grain supplies and further damage to the corn crop since September, hog producers will cut back the number of sows farrowing this fall and winter. Outcome: the fall pig crop will drop even more than the 7 percent originally planned, and spring slaughter could skid 10 to 15 percent or more below year-earlier levels.

For sheep, continued liquidation will translate into a smaller 1975 lamb crop and reduced slaughter supplies. Slaughter lamb prices will top 1974 levels, with spiraling feed costs holding



Cotton Crisis

U.S. cotton growers have entered a season of crisis. For the second straight year, weather has crippled efforts to turn out a successful crop.

Mother Nature struck most recently in the Delta, where wet weather proved a boon to insect growth but a bane to cotton development, and in the Southwest, where weather reduced plantings and dropped yields.

Production this season is estimated at 11.9 million bales—sharply below previous forecasts and roughly a million bales below the 1973 crop. Yields are running well below normal, and output in the Southwest will probably fall shy of last year's. Meantime, the Southeast and Far West report somewhat larger crops, and production in the Delta should about match last year.

World fiber demand knew virtually no limits last season, and combined mill use and exports of U.S. cotton use peaked at 13.6 million bales. But the economic growth that sparked this demand has sputtered and waned. The upshot: exports and mill use of cotton may fall short of 11 million bales, with cotton stocks piling up to around 5½ million bales by next August.

Demand for cotton and other fibers won't pick up overnight. The prognosis for 1975 shows only slow recovery from the economic ailments now besetting the U.S. and most of the world.

U.S. producers in 1975 will have to get good prices to offset production costs now estimated at 44 cents a pound. But cotton prices are slipping. SLM 1-1/16 inch cotton brought only 40 cents a pound this past November—versus 67 cents in November 1973.

Depressed prices have prompted many growers to hold on to their cotton in hopes that prices will improve later in the marketing year.

feeder prices well below the slaughter market.

You have to go back to the late thirties to find an egg laying flock as small as 1974's. Nonetheless, a record rate of lay during January-October prevented production from slipping much more than 1 percent below year-earlier levels. Output for that period totaled 152 million cases, the lowest since 1964.

By spring, production may lag year-earlier amounts by as much as 4-6 percent. Reasons: egg laying rates are expected to fall and there'll be fewer pullets on hand for flock replacement. Chicks hatched during May-October for flock replacement in late 1974 and early 1975 were down 14 percent.

It's bad times for broiler producers. Ample beef supplies have helped put a lid on broiler meat prices and feed grain costs are staying on the high side. With these conditions, poultrymen aren't exactly eager to expand production. Output this winter and spring may slump 12-15 percent below a year earlier.

Broiler prices failed to drop as usual this fall, as production skidded 10 percent from fall 1973. With prospects for a sizable decline in broiler output, prices should gain in winter and spring—with a little help from sluggish pork output.

Tight soybean supplies are the order of the day . . . and of many days to come. As of November 1, supplies totaled 1.42 billion bushels, about 13 percent below the 1973/74 record. Despite steep prices, disappearance may soar some 100 million bushels over 1974 production, but 7 percent below last season.

This could drain carryover stocks on September 1, 1975 to about 60 million bushels—a mere 2 weeks' supply. Carryover this past September ran nearly three times larger. Only a strong surge in soybean production can prevent continued tight supplies through the 1975/76 marketing year.

As of November 1, the 1974 soybean crop was estimated at 1,244 million bushels—a fifth below the year-earlier

record. Summer drought and early frosts slashed yields by 4 bushels from last year's record 27.8 bushels per acre.

Short supplies and stiff demand pushed farm prices to \$7.65 per bushel this fall—versus \$5.50 at harvesttime a year ago. Farmers with ample storage facilities are finding it pays to sit tight and sell their soybeans later.

Supplies of soybean oil—estimated near 9 billion pounds—are off roughly 6 percent from last year. High prices and short supplies will help hold use well below last year's record 7.3 billion pounds.

Fourth quarter 1974 is driving a wider wedge in the farm-retail spread for a market basket of farm foods. The spread for the entire year will probably average 21 percent higher than in 1973—an annual gain three times the previous record.

Accelerating wage rates, energy, material costs, and transportation changes will continue to lift marketing margins during first-half 1975, although at a slower rate than a year earlier.

Cost pressures that built up during price control programs—and the energy crisis—have already been worked into most farm-retail spreads. Therefore, economists say, spreads and costs incurred by food marketing firms in first-half 1975 may be more in line with general price levels.

Retail prices in early 1975 will head higher—as in the past 11 quarters. In third quarter 1974, a market basket of U.S. farm foods cost \$1,751 (annual rate)—up 1 percent from the previous quarter but 9 percent over a year earlier.

Oilseed products, bakery and cereal products, sugar, and processed fruits and vegetables were biggest price gainers. In contrast, retail prices for meats, poultry, and eggs retreated from 1973 levels.

Farmers grossed \$720 (annual rate) for a market basket of farm foods during third quarter 1974—down 7 percent from record earnings a year earlier. Meantime, for each dollar consumers spent on food, farmers got 41 cents—up a penny from the quarter before, but 8 cents less than a year ago.

Features

- Appetite for Energy** 4
Special report to the U.S. Senate on agriculture's energy needs to 1980 . . . including breakouts for five key sectors of the food and fiber industry.

- Satisfied? Consumers Rate the Food Industry** 9
Shoppers participating in a nationwide survey said they are generally satisfied with foods, but that marketing services leave much to be desired.

- Cultural Crossroads: American Indians in the '70's** 12
Although still the only predominantly rural group in the U.S., American Indians are rapidly urbanizing—a move which is bound to bring changes in lifestyles and culture.

- Canada: Push on Exports** 16
Our northern neighbor has launched an all-out drive to expand today's wheat markets, penetrate new ones, and to move other Canadian farm products on the world market.

Departments

- Outlook** 2

- Recent Publications** 19

- Addresses of State Experiment Stations** 20

- Index (January-December 1974)** 21

- Economic Trends** 23

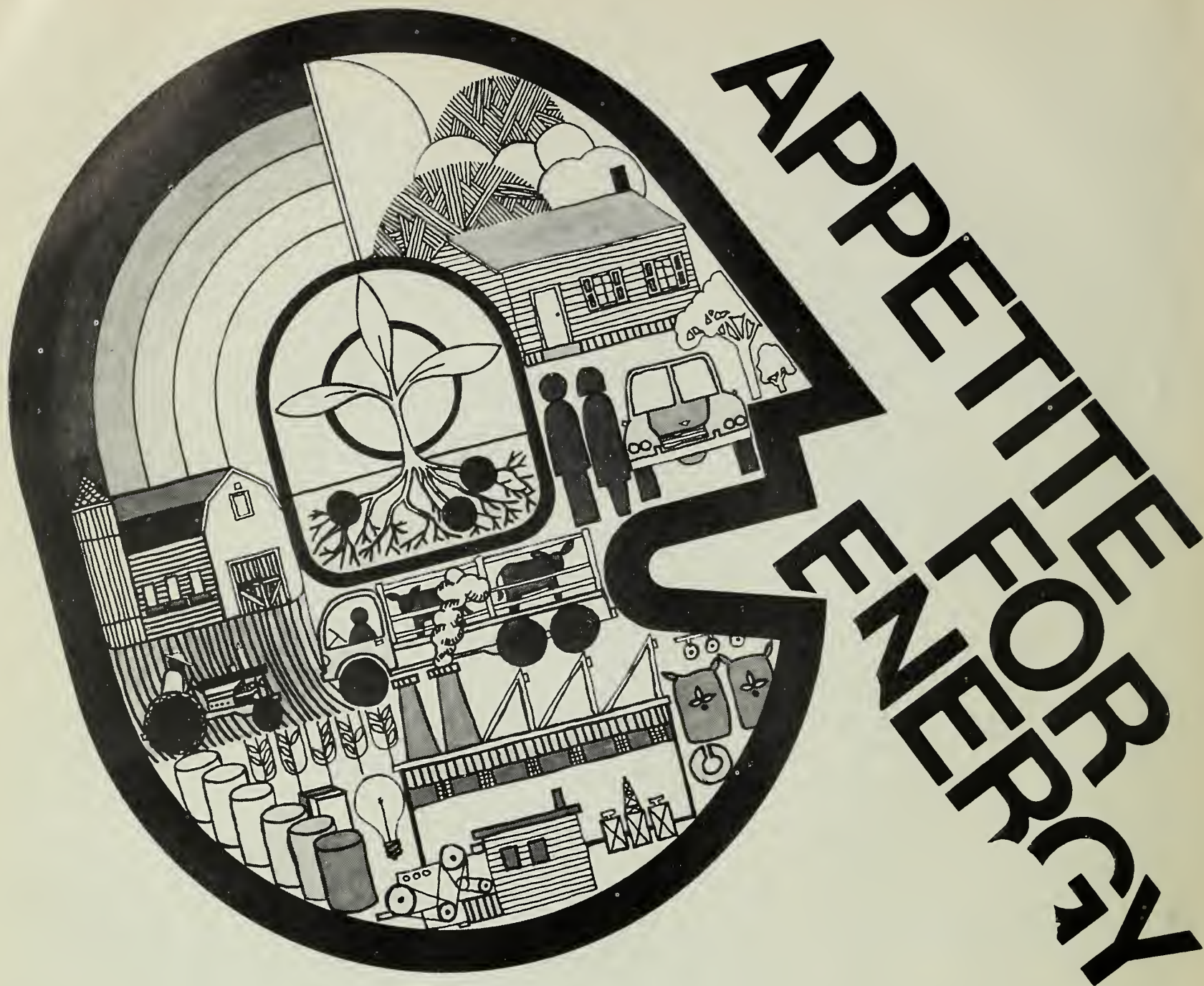
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Energy needs of U.S. agriculture are bound to leapfrog in years ahead. ERS gives its analysis of the situation in a special report done at the request of Congress.

Unless they're pumping oil, farmers can't make fuel any more than they can make it rain.

Big diesel tractors do most of the land fitting and planting in this country. If the fuel's not there when it's needed, crop yields will nose-dive. In the central Corn Belt, corn yields per acre drop a bushel a day during May 1-15 for each day's delay in getting the crop in, and 2 bushels a day from then to the end of May.

It amounts to a hefty financial loss for the man who farms 1,000 acres, not to mention inflated costs of corn on the local market due to the supply shrinkage.

How to lose \$157 grand. Suppose this farmer's corn should have gone in May 1 but that a fuel shortage kept his tractors out of the field till June 1. Total yield reduction pencils out to 45 bushels an acre, or 45,000 bushels for the entire farm. At a market price of \$3.50 a bushel, the fuel crunch cost him over \$157,000.

Who cares?

Consumers should. In the end the farmer's loss will be handed to them in larger food bills.

The effect of fuel shortages on

agriculture worries the lawmakers on Capitol Hill, too. So the Congress asked ERS to assess the future needs for fuel by the food and fiber sector through 1980.

ERS's report in hand, Senator George McGovern—Chairman of the Subcommittee on Agricultural Credit and Rural Electrification—had this to say about agriculture's fuel priority:

Senator's assessment. "The timely supply of fossil fuels to the food and fiber sector is imperative for orderly processing and marketing of farm production inputs and food products at least-cost prices.

"Curtailement of natural gas and disruption of petroleum fuel supplies will require substantial capi-


ENERGY USED FOR—

1970  1980 

FARM PRODUCTION

1,051 TRIL. B.T.U.


1,095 TRIL. B.T.U.

CHANGE: UP 4% 

FARM FAMILY LIVING

555
TRIL. B.T.U.


499
TRIL. B.T.U.

CHANGE: DOWN 10% 

FOOD PROCESSING

1,303 TRIL. B.T.U.


1,548 TRIL. B.T.U.

CHANGE: UP 20% 

MARKETING & DISTRIBUTION

833 TRIL. B.T.U.


989 TRIL. B.T.U.

CHANGE: UP 19% 

INPUT MANUFACTURE

925 TRIL. B.T.U.

1,064 TRIL. B.T.U.

CHANGE: UP 15% 

tal expenditures . . . shortages of these fuels will reduce supplies of inputs and thus food and fiber."

The ERS study concluded that by 1980 the energy needs of selected food and fiber industries will rise to nearly 5,200 trillion Btu (British thermal units), an increase of over 11 percent from 1970. [It takes 1 Btu to raise the temperature of 1 pound of water by 1 degree F.]

Fuel needs understated. ERS emphasized this projection applies only to five subsectors of the food and fiber industry—farm production, farm family living, food processing, marketing and distribution, and manufacture of certain inputs. Total energy needs of the whole food and fiber sector will total much more than 5,200 trillion Btu by 1980.

The industries selected for the ERS analysis used 4,667 trillion Btu of fossil fuel energy in 1970. Other studies have indicated our total food system, including home food storage and preparation, used up to 8,618 trillion Btu that year.

In the ERS breakdown, the only category of farm family living shows a decline in energy use in 1980. Top gainers in energy will be food processing, and marketing and distribution.

Fueling farm homes. Energy used for farm family living is slated to fall 10 percent as the number of farm families drops 21 percent to 2.33 million in 1980. Both natural gas and LP gas use, however, will increase as farm homes shift to these fuels for space heating.

Energy demands for food processing will balloon as much as 30 percent by 1980 due to the trend towards convenience foods, which have a hearty appetite for energy. Sharpest increase will be for frozen specialties—TV dinners, pizzas, and other snack foods. Their energy requirements will double by 1980, and will equal those of farm production and family living combined. Natural gas will remain the No. 1 energy source for food processing.

Marketing and distribution. Marketing and distribution will demand 19

percent more energy in 1980 compared with 1970. About nine-tenths will come from transportation—diesel fuel for trucks, trains, and barges—to get food from the farm to market.

Energy consumption for input manufacturing is projected to go up 15 percent between 1970 and 1980. The fertilizer industry will continue as the heaviest user, accounting for nearly 60 percent, and natural gas will be the principal energy source.

Farm production's energy needs are expected to show the smallest advance among all subsectors of the food and fiber industry, except for farm family living. Requirements for farm production will rise only 4.2 percent. But, farm production will remain the second biggest energy user after food processing—about 21 percent of the total for the industries studied. And without the energy to feed the production subsector, you can forget about the rest.

Acres for food. ERS has calculated that farmers will supply increased food needs from fewer acres in 1980, with acreage expected to decrease from 371 million in 1973 to 354-365 million in 1985. Yields will improve as farmers continue to adopt new technology.

The shift from gas to diesel tractors and combines will not let up, and diesel fuel will account for over 40 percent of all farm production in 1980, up from 28 percent in 1973. LP gas use will climb slightly as farmers expand crop drying.

The predicted drain on natural gas supplies is a paramount concern to agriculture. Natural gas is the feedstock for production of nitrogen fertilizer.

Ammonia and energy. Total energy requirements for anhydrous ammonia production are projected to increase from 458 trillion Btu in 1972-73 to 532 trillion by 1980, or 16 percent.

Anhydrous ammonia is the source material for making urea. Heat and power energy requirements for urea production for all purposes will

gain 54 percent between 1972-73 and 1980. Of the estimated 10.6 trillion Btu needed in 1980, production of solid form urea will account for 35 percent, solutions for 65 percent. Ammonium nitrate is also produced as a solid and as a solution but information is available only on solids, for which energy needs are projected to rise 14 percent by 1980.

Natural gas is also the mainstay fuel for many of the input supply and food processing firms. Conversion of power plants to coal or oil would be costly. Inevitably, consumers would pay for it.

ERS economists figure that by 1980 the market share of liquid petroleum fuels will decline from 50 percent to 48 percent of Btu use, against an increase in natural gas from 30 percent to as much as 32 percent.

Circular exports. One way to ease the fuel crunch on the food and fiber industry would be to cut down on farm exports. After all, why import costly petroleum only to export it again in the form of farm goods?

If we cut back on farm exports, our balance of payments ledger would be in a mess, since farm exports contribute strongly to the positive side.

Dollar for dollar, petroleum is one of the most efficient energy resources we have today. In 1970, ERS found that for each unit of energy that corn farmers employed—including human energy—they got back 3 times more in cash returns. Significantly, the return from petroleum products alone was much higher—a ratio of 5 to 1.

[Based on *The U.S. Food and Fiber Sector: Energy Use and Outlook*, prepared for the Subcommittee on Agricultural Credit and Rural Electrification of the Committee on Agriculture and Forestry, U.S. Senate, Sept. 20, 1974, by Earle E. Gavett, John H. Berry, J. Warren Mather, Herman W. Delvo, Richard B. Smith, Duane A. Paul, Austin S. Fox, Gwendolyn Gales, Ronald Bird, James J. Mikesell, Frank H. Osterhoudt, and Virgil Whitzel.]



Tired of poinsettias, holly and mistletoe? Try Amaryllis.

What's an Amaryllis? It's a red flowering plant discovered growing wild in the heat of summer in South Africa around the turn of the 17th century. Fascinated by their find, botanists brought it back to England.

The following winter—when it was once again blossom time in South Africa—the bulb surprised Londoners by bursting into bloom on Christmas Day. That first December bloom marked the beginning of a new tradition—Amaryllis at Christmas.

Today, most Amaryllis plants are bred in Holland, where they have been hybridized over the years. Because of the expense of hybridization, Amaryllis plants once cost a pretty penny.

Currently, an average-sized plant, between 18" and 36" high with four or more large flowers, costs between \$5 and \$7 a bulb.

Interest in the Amaryllis plant in the U.S. has grown tremen-

dously. Import figures show that in 1971 we bought 550,000 Amaryllis bulbs from Holland. This past year, the U.S. imported 1,100,000.

Bulb importers attribute the booming trade to the fact that the Amaryllis is, in their words, a "living plant." Once the bulb is planted, you may see growth within 24 hours. The typical Amaryllis is ready to bloom in 4-6 weeks. And, unlike the poinsettia—the perennial Christmas favorite—the Amaryllis blooms much longer, often from December through April.

The Amaryllis can also be made to flower year after year. When the Amaryllis no longer blooms, just cut it back and bury it outdoors until the following fall. When brought back indoors, the Amaryllis will bloom again for years to come.

[N.B. fans of the poinsettia. Your traditional favorite continues to make a strong showing in the trade ledgers, with imports now running more than 9 million plants a year.]

Cropland Has-Beens: Over 160 Million Acres Since the Late 1800's

"See that shopping center? I can remember when all that land was in corn and tobacco."

Statements like this have become familiar to us all. And no wonder. The U.S. has over 160 million acres that have gone out of farming since the late 1800's—the equivalent of roughly three-fifths of our harvested cropland today.

Poring over 1880–1969 Census data, researchers found that as many as 436 million acres had been planted to crops sometime during that period, but that only 272 million acres remained in production in 1969. Much land, of course, has been brought back since then. Crops were harvested from about 322 million acres in 1974.

The 436 million acres are the sum of the peak levels of cropland harvested by every county across the Nation. In 1929, the U.S. reported 359 million acres of cropland—the most ever in production in any 1 year. The national and county records vary sharply because not all counties had top acreage that particular year.

Ninety-five percent of all counties harvested their peak acreage after 1900. Those cresting before 1900 were mainly along the eastern seaboard where most of the population lived at that time.

Close to a fourth of all counties reached their maximum acreage from 1900–1920. But 1920–1940 brought a record 1,217 counties to their peak as tractor power replaced horses and mules. During the following 2 decades, harvested acreage hit record levels in a fifth of all counties.

Irrigation and drainage proved the driving force in counties where acreage hit top levels after 1960. Most affected were areas along the Mississippi River, in southern Florida, and in the central Corn Belt.

In 1969, 57 million acres were diverted from crop production under federal programs. This means that

of the 164 million acres that weren't farmed that year, 106 million no longer formed part of the cropland base. Nearly three-quarters of the acreage vanished from five regions: the Northeast, Northern and Southern Plains, Appalachia, and the Southeast.

In many cases, this land was abandoned because it was inferior to present cropland. On average, about 2½ million acres of farmland are converted to other uses—including grass and trees—each year, but development of nearly 1¼ million acres of new cropland partly offsets this conversion.

Experts say that only a minor share of abandoned cropland could compete economically with present farmland if returned to production. Acreage most likely to be brought back lies mainly in highly productive farming regions.

Generally, the earlier a county reached its peak harvested acreage, the larger its share of retired land. For example, 80 percent of the North-

eastern counties hit cropland peaks before 1920. Much of this land then shifted to other uses, and it's unlikely to return to agriculture.

Too, fields throughout the Northeast—as well as in parts of Appalachia and the Southeast—are too small and scattered for efficient use of modern machinery. And much of the former cropland has reverted to wooded areas.

The best potential for reclaiming cropland lies in the Northern and Southern Plains, where grassland can easily be sown to wheat, and in the Southeast, where land may be quickly revitalized with lime and fertilizer.

The Delta and Southeastern regions also have vast areas that have never been cropped but which could become productive farmland with proper drainage.

[Based on manuscript *Former Cropland in the United States: An Analysis of Historic Peaks in Acreage of Cropland Harvested, 1880–1969*, by George Stevens, Natural Resource Economics Division.]

Palm Oil: Dark Horse in the Oils Market

A shopper pauses at the dairy counter to examine the ingredients listed on a box of margarine. Vegetable oil, corn oil, safflower oil, and . . . palm oil?

Though unfamiliar to many people today, imported palm oil from Malaysia and Indonesia could join the ranks of our leading edible oils within 10 years, so say ERS fats and oils specialists as they read palm oil's future.

But "palm oil" will be creeping into our vocabulary even more before the 1980's if present trends keep up.

Palm oil's share of the domestic edible oil market climbed from about 1½ percent in 1970 to 5 percent in 1973, and palm oil imports are expected to rise steeply in 1975 as supplies become more plentiful and prices remain competitive with soybean and cottonseed oil.

Nearly all the palm oil we import is used as edible oil, mostly shorten-

ing. Shortening manufacture took 350 million pounds of oil in 1973 out of total imports of around 400 million, up from only 61 million in 1967.

U.S. consumption of palm oil will probably continue to increase over the next decade along with total demand for food fats and oils.

Most of the gain in demand for fats and oils will be in the cooking and salad oil market where palm oil's potential is limited by technical problems. But palm oil could easily slip into the margarine market.

Price is one of palm oil's biggest selling points. Although price hikes for palm oil have kept pace with record increases for most fats and oils, it is still the cheapest vegetable oil in the world.

[Based on "Palm Oil in the World's Fats and Oils Industry," speech by George W. Kromer, Commodity Economics Division, at the Palm Oil Symposium, 48th Annual Fall Meeting of the American Oil Chemists' Society, Philadelphia, Pa., September 30, 1974.]

Brazil Looms Large As Rival Soybean Producer

The world market for soybeans is tight now and U.S. farmers needn't lose any sleep over foreign challenges in the production department. But if the market slackens, watch out for Brazil—an awakening giant in soybean production.

While our soybean production has dropped 20 percent because of weather this year to 34.3 million metric tons, Brazil's is up 30 percent from 1973 to a record 7 million.

Brazil's prices have traditionally been lower—its soybeans yield less oil than ours—but in a high-pressure market the U.S. will feel pressure from the Latins.

Brazil could now well be the world's second largest producer of soybeans after the U.S. Mainland China, which was long No. 2, has not released agricultural figures since 1959, but is reportedly emphasizing other products in its agricultural plan.

In 1960, the U.S. produced 15.1 million tons, China an estimated 10.2 million, Brazil 206,000, and all other countries a total of 90,000. While our production nearly tripled, China's sank to an estimated 6.5 million.

Brazil's soybean exports have surged even more dramatically than its production. This year's exports—an estimated 2.8 million tons—are 40 times the 1968 level.

Brazilians use nearly all the oil extracted from their soybeans at home, but they are exporting more meal every year. So far they've sold almost 2 million tons abroad this year—8 times the 1968 volume.

Brazil owes its rise to stardom to government efforts to prod soybean output. For example, in 1973 officials removed the export tax on soybean meal; in 1974 they reduced the export tax on soybeans from 13 to 9.5 percent; and for 1975, the support price to producers was raised to encourage production.

Though a distant second in the world soybean league, Brazil's future looks rosy. A conservative forecast

for 1975 puts production at almost 8.3 million tons, and some observers predict output will soar as high as 9 million.

[Based on special material from Samuel O. Ruff, Foreign Demand and Competition Division and Evans Brown, Foreign Agricultural Service.]

Manmades Continue To Romp Through U.S. Fiber Market

If you're in the habit of reading textile labels, you're aware that the names in the fiber game have changed. Dacron, nylon, rayon, polyester, and acrylic continue to weave their way into markets long dominated by natural fibers.

Use of manmade fibers has grown at a phenomenal rate since the late 1940's, and they now corner well over half the total fiber market. As a result, less cotton and wool are being consumed in all major end uses.

Cotton's best customer is house-

hold furnishings, yet even here cotton has suffered. Its share of the household market dipped from nearly two-thirds in the 1960's to two-fifths in 1970. Not only are growing amounts of manmade fibers and blends turning up in rugs and carpets, but polyester blends are also gaining in the manufacturing of bed-sheets, long considered cotton's domain.

Wool use in the home furnishings market was about halved in the 1960's. As a share of the total market, wool declined from around a tenth in 1960 to about 3 percent 10 years later, while total fibers in household furnishings increased by more than three-fourths.

Men's apparel is the second largest outlet for cotton, claiming just over one-fourth of total demand for cotton in 1970. Over half this market is in work clothes and underwear, where cotton is preferred for its durability and comfort.

But in other lines of men's clothes, cotton has taken a backseat to manmade fibers. Cotton's share of the men's apparel market skidded from 75 percent in 1960 to 56 percent 10 years later.

Wool has also lost heavily to synthetics in men's apparel. Its market share shrank from one-eighth to one-sixteenth during the 1960's. Men's sweaters and suits took most of the beating.

Women's apparel is not faring any better—cotton and wool use has trended down in the last decade in all major end uses. Most materials going into women's clothing today are synthetic blends.

No one is certain what the future has in store for cotton or wool fibers. The continued use of noncellulosic fibers depends on the availability of petroleum. If the energy crisis worsens and supplies of petroleum and petrochemicals dry up, cotton and wool may benefit at the expense of manmades.

[Based on *U.S. Textile Fiber Demand—Price Elasticities in Major End-Use Markets*, Tech. Bull. 1500, by George E. Dudley, National Economic Analysis Division.]

Picturing U.S. Agriculture

Trends in America's agriculture can be viewed graphically in the new 1974 *Handbook of Agricultural Charts*.

This ready reference book has some 195 charts illustrating subjects ranging from farm commodity trends to family economics. Other sections feature charts depicting the general economy, foreign production and trade, and population and rural development. This year's handbook also contains a food and nutrition section for the first time.

Some charts in the book include pictorial illustrations.

Single copies of the 1974 *Handbook of Agricultural Charts* can be obtained without cost by writing the Publications Unit, Rm. 0054, Economic Research Service, U.S. Department of Agriculture, Washington, D.C. 20250. Ask for AH-477.

The USDA also is offering a 195-frame color slide set for use in the classroom or for conferences.

Order from Photography Division, Office of Communication, USDA, Washington, D.C. 20250.



Consumers are generally satisfied with the food they buy and the stores where they buy it.

They said so in a recent nationwide survey. But when it came to the nitty gritty, the pollsters detected a strong undercurrent of frustration and displeasure with our food system.

The survey, taken in the spring of 1974, asked consumers how satisfied they were with: foods they buy, stores where they usually shop, product or shopping information, seven food product groups, and 31 individual food items.

Two of every three of the survey's 1,831 respondents said they are always or almost always satisfied with food products they buy for their households. Some 30 percent expressed reservations, but only 4 percent claimed they are rarely or never satisfied.

An even larger share—70 percent—reported they are just about always satisfied with food

stores in general. This high level of consumer approval broke fairly evenly across regions and demographic groups.

But satisfaction with product and shopping information proved a different matter. Consumers were most unhappy with the "reliability and truthfulness" of advertising by food product manufacturers. More than a third said this kind of information seldom or never pleases them. They had fewer gripes about nutritional labeling and ingredient labeling. Still, only about half found such information to their liking.

In sharp contrast, a majority of shoppers endorsed the reliability and truthfulness of ads sponsored by individual food stores.

To determine average levels of consumer dissatisfaction, survey members developed a five-point scale: 1—always satisfied, 2—almost always satisfied, 3—sometimes satisfied, 4—rarely

satisfied, and 5—never satisfied. The higher the score, the greater the dissatisfaction.

For example, consumers strongly doubted the reliability of food manufacturers' advertising, with over one-third saying they are rarely or never satisfied (average dissatisfaction score, over 3), but expressed general satisfaction with ads sponsored by food stores (score, over 2).

More than half of all survey participants claimed they are highly pleased with all seven major food product groups: meat and poultry, dairy products and eggs, bakery and cereal products, fresh fruits, fresh vegetables, processed fruits and vegetables, and prepared or convenience foods.

Even so, consumers were least happy with convenience products and most satisfied with dairy products and eggs. Bakery products and processed fruits and vegetables also rated favorably.

Past grievances. Despite contentment with food products and marketing services in general, 70 percent of the shoppers said they'd been disappointed with certain foods or food stores during the past year.

But of those who found fault with

a specific food item, only 7 percent actually complained to the manufacturer. This surprised pollsters, since an earlier survey revealed that consumers consider writing to manufacturers and talking with store managers the two most effective ways of settling differences.

Too, evidence suggests that most manufacturers are highly responsive to consumer grievances, and in most cases will grant refunds or replacements without requiring proof that a product is faulty.

Even fewer dissatisfied consumers—3 percent—complained to public officials or consumer protection agencies. They were more likely to protest to food store management (50 percent) or participate in boycotts against manufacturers or food stores (12 percent).

Common outlet. But an overwhelming majority of dissatisfied customers simply complained to friends and relatives. The implication... letters on file with food manufacturers and public officials don't begin to measure the extent of consumer unrest, according to the survey report.

Just over 40 percent of all survey participants had actively complained to manufacturers, store officials, and

public agencies, or joined boycotts. The survey team arbitrarily termed this group "activists" and tried to determine how representative they are.

Several demographic crossbreaks of consumer "activists" yielded this profile: He or she is likely to

- live in the Northeast
- be under 55 years old
- come from a household of more than two people
- have college background
- earn more than \$15,000
- live in the suburbs.

Other demographic checks showed that satisfaction with food products is significantly related to age, household size, race, community type, consumer activism, and to a lesser extent, occupation.

Age a factor. The younger the shopper, the greater the discontent. And contrary to the popular notion that senior citizens complain the most, shoppers 55 and over proved the least vocal of any age group.

Consumers from large households tended to be more critical than those from smaller households. And non-whites were considerably less pleased with food purchased for their homes than were whites.

WHAT SHOPPERS SAY ABOUT THE FOOD INDUSTRY

CONSUMERS CLAIM THEY'RE SATISFIED WITH:

	ALWAYS	ALMOST ALWAYS	SOMETIMES	RARELY	NEVER	Average Dissatisfaction Score*
	Percent					
All food products	6.2	60.0	29.5	3.5	.7	2.32
Nutritional labeling	12.0	37.4	34.1	14.3	2.1	2.57
Ads sponsored by food manufacturers	5.6	17.1	43.0	26.9	7.4	3.12
Ingredient labeling	13.7	40.2	32.9	10.8	2.5	2.48
Food stores	16.0	54.1	23.3	5.2	1.4	2.22
Price information	17.4	42.9	25.4	10.6	3.6	2.40
Ads sponsored by food stores	17.2	44.5	27.7	8.7	1.9	2.34
Information concerning freshness	14.4	39.0	30.1	13.4	3.1	2.52
Meat and poultry products	13.0	46.5	30.0	8.4	2.1	2.40
Dairy products and eggs	28.4	53.4	13.9	2.9	1.5	1.96
Bakery and cereal products	26.7	52.0	16.2	3.9	1.3	2.01
Fresh fruits	18.1	45.0	28.8	6.6	1.5	2.29
Fresh vegetables	13.8	42.5	34.5	7.4	1.8	2.41
Processed fruits and vegetables	24.8	53.5	17.0	3.5	1.2	2.03
Prepared or convenience foods	17.1	40.5	26.6	10.6	5.2	2.46

* 1—always satisfied, 2—almost always satisfied, 3—sometimes satisfied, 4—rarely satisfied, 5—never satisfied.

Dissatisfaction with foods varied with place of residence—rural people didn't complain as much as city dwellers. Also, levels of frustration were higher for activists than non-activists.

Various population groups also differed sharply in their assessments of convenience foods, fresh fruits, and fresh vegetables—the product groups with relatively high dissatisfaction ratings.

Price, of course, proved the chief gripe against all food groups and individual food items. People were most unhappy with the price of beef, pork, tomatoes, potatoes, and milk. At the time of the survey, these prices were near or at record levels and rising rapidly. In contrast, the tab for processed fruits and vegetables drew little criticism.

Except for price, specific sources of dissatisfaction varied from product to product.

Convenient, but. Of all convenience foods, skillet main dishes—packaged products added to meat to make stews, hashes, etc.—got the worst scores.

Frozen TV dinners also came under fire for price, taste, healthfulness, size of portions, and truthfulness of picture and label on the package. Toaster pastries and tarts were singled out for high price and lack of nourishment.

Tomatoes got the highest dissatisfaction rating of the 31 individual products in the survey. Consumers had bad things to say about price, ripeness, taste, and appearance.

Other survey findings:

Except for chicken, meat products got hefty dissatisfaction ratings for price and fat content. In contrast, satisfaction with six processed fruits and vegetables—including canned tomatoes, frozen vegetables, and orange juice—ran uniformly favorable.

More than 80 percent of the respondents bought ready-to-eat cereals. Though price was a source of contention, dissatisfaction proved remarkably low considering recent publicity critical of nutritional values of most cereals.

Along with eggs, all five dairy products tested earned low dissatisfaction scores—none topped 1.95. Nevertheless, consumers were more upset with the price of dairy products—particularly milk—and eggs than most other foods.

[Based on "Satisfied? Consumers Rate the Food Industry," by Charles R. Handy, National Economic Analysis Division, in the *National Food Situation*, NFS-150, November 1974.]

Pesticides Run Up \$1-Billion Bill

The high cost of pesticides is bugging farmers.

Latest available data for 1971 pegged farmers' spending on pesticides at over \$1 billion—up 80 percent from 1966. The jump in expenditures was due to a combination of farmers using more expensive pesticides, particularly herbicides, and farmers using a 40-percent larger volume of pesticides.

Of that billion dollars, \$943 million went to protect crops. Sixty-two percent of the crop pesticide expenditures were for herbicides, over 25 percent were for insecticides, and 6 percent, for fungicides.

Livestock pesticides cost \$44 million, and another \$15 million was spent on pesticides for other uses.

The most money was paid out for the protection of corn—\$325 million. With \$138 million spent on soybeans and \$132 on cotton, these three made up 63 percent of total expenditures on crop pesticides.

Two-thirds of the money for herbicides was for weed control in corn and soybean production. Half of the outlay for insecticides went to control insects on corn and cotton. Of fungicide expenditures, more was used on peanuts than any other crop. Fruits, nuts, and vegetables also required sizable outlays.

Acre for acre, the most expensive crop to protect from pests is apples at \$51.20 per acre. On the other hand, some grains required as little as \$.70 an acre for pesticides.

Though farms with gross annual sales of over \$40,000 constituted only

Brownbaggers Beware

What's for lunch tomorrow? If you're one of the many who brownbag it to work, do be careful about carrying fried chicken, roast beef, or baked ham.

If it's more than 3 hours from the time you pack your lunch until you eat it, and that meat isn't kept either very hot or very cold, the main course could become a breeding place for bacteria and disease.

An ERS survey has shown that only about half of American homemakers are aware that even cooked meat can easily become contaminated if left at room temperature for more than 2 or 3 hours.

Two-thirds of those questioned had no qualms about packing cooked chicken, beef, or ham. The homemakers seemed somewhat more aware of the greater dangers in packing unrefrigerated foods that are rich in eggs. Two-thirds hesitated to bring potato salad, deviled eggs, or cole slaw. More than three-fourths avoided carrying salad sandwiches and cream pies.

So, if you can't tote an ice chest this winter, and you're not willing to forego your fried chicken for a peanut butter sandwich, how about putting your lunch bag out on the windowsill?

[Based on ERS report *Consumers' Knowledge, Opinions and Attitudes Toward Safety in Selected Food Items*, A Preliminary Summary Report, by the National Economic Analysis Division.]

11 percent of all farms, they accounted for 58 percent of total pesticide expenditures. Farmers bringing in less than \$10,000 made up 63 percent of all farms, but accounted for only 9 percent of pesticide expenditures.

Seventy-eight percent of all crop pesticides were sprays, 16 percent were granular forms, and 4 percent, dusts.

More than half of the money for livestock pesticides went to protect beef cattle.

[Based on the manuscript *Farmers' Use of Pesticides in 1971: Expenditures*, by Helen T. Blake and Paul A. Adrilenas, National Economic Analysis Division.]

Cultural Crossroads: American Indians in the '70's

"I know that my race must change. We cannot hold our own with the white men as we are."—Chief Joseph, Nez Perce, 1879.

"Like the Thunderbird of old I shall rise again out of the sea; I shall grab the instruments of the white man's success—his education, his skills, and with these new tools I shall build my race into the proudest segment of your society . . . So shall we shatter the barriers of our isolation."—Chief Dan George, Coast Salish, 1967.

These words, spoken by Indian leaders over the span of nearly a century, capture the dilemma and the challenge facing American Indians today.

Unprepared by their old way of life for a rapidly industrializing, technologically-oriented society, Indians have had a hard time keeping pace with modern pressures. To some extent also, many Indians have resisted adopting lifestyles that conflicted with their view of the world.

Despite gradual improvements in their lot in the past decade or so, they continue to be the most deprived minority group in the U.S. Income is lower, poverty deeper, health and sanitation poorer, and housing more inadequate than in the rest of the population. Among rural Indians, the disparity is even greater.

Urban migration. However, the Indian people now appear to be entering a hopeful, though painful period of economic, social, and cultural change. Although still predominantly rural—and the only ethnic group in the U.S. to be so—this young, growing population is rapidly making the move from the reservation to urban areas.

During the 1960's nearly 200,000 Indians streamed into large cities

One objective of the Economic Research Service is to keep track of what's happening in rural America, such as changes in population makeup, migration patterns, and impacts on the rural workforce. This article represents one aspect of investigations in such areas.

such as Los Angeles, New York, San Francisco-Oakland, and Oklahoma City in search of jobs and a higher standard of living. The percentage of Indians remaining in rural areas dropped from around 70 percent in 1960 to 55 percent in 1970.

Many of these new urbanites are young people attempting to gain a foothold in a largely impersonal set-

ting. Caught between a world of ancient traditions and one of unfamiliar ways, their adjustment from reservation to city life is often traumatic. Urbanization is requiring changes in lifestyle, occupation, and in values and customs.

In moving from an essentially subsistence economy to a price and market system, more and more Indians





of timelessness to clockwatching, and identification with nature to dealing with machines in manmade surroundings.

"As a child I understood how to give," wrote Ohiyesa, a Santee Dakota physician and author; "I have forgotten this grace since I became civilized. I lived the natural life, whereas I now live the artificial. Any pretty pebble was valuable to me then; every growing tree an object of reverence. Now I worship with the white man before a painted landscape whose value is estimated in dollars."

Conflict and challenge. This conflict of cultural values and the pressure to adjust to new ways of thinking may be the most difficult challenge Indians face in their transition to urban life.

The past decade has also seen the emergence of a growing degree of militancy, especially among younger Indians. Impatient with the pace of improvement in their lives, many have turned to political activism as a means to air their grievances and stimulate reform.

"Our ideas will overcome your ideas," says Vine Deloria, Jr., one of the spokesmen of the Indian movement. "It isn't important that there are only 500,000 of us Indians. What is important is that we have a superior way of life."

Like other ethnic groups, Indians have long wrestled with the issue of staying apart from or assimilating into white culture. U.S. policy has wavered on this matter in the past, and there is no unanimity among Indians themselves about which road to follow—to be Indians first or Americans first.

Which way to go? On the one hand, Indians are showing a mounting pride in identifying with their heritage and seeking to preserve their language and customs. But at the same time, many seem to recognize the need for some accommodation to the opportunities of white society.

A time of rapid change is difficult for any cultural group. When that group is disadvantaged socially and economically, and bears the psycho-

logical burden of being a minority in the surrounding society, adjustments toward upward mobility are particularly frustrating.

And until the larger problem of acculturation versus separatism, or some middle ground between the two, is resolved, Indians are likely to feel uneasy about their role and potential in a modern, urbanized economy.

Yet the pull toward urbanization is not the only force contributing to changes in Indian culture.

Government relationships with Indians are another factor. Current U.S. efforts are aimed at involving Indians to a greater extent in planning and carrying out programs affecting their lives without terminating Federal support and the Indians' trustee status.

This represents a departure from the past, when services were operated for Indians, not by them, and the beneficiaries had little or no voice in decisionmaking. A change of this degree will likely bring about alterations in historic customs and attitudes as Indians gradually assume unfamiliar roles and tasks.

Settling native claims. Perhaps the most far-reaching action so far taken by the Federal Government along these lines was the enactment of the Alaska Native Claims Settlement Act in 1971.

A comprehensive and complicated piece of legislation, the act calls for the appropriation of nearly \$1 billion over several years to settle the long-standing land claims of thousands of native Alaskans. About 40 million acres of withdrawn public lands, including mineral rights, are involved in the settlement process.

Procedures for land selection and administration outlined in the law bring the isolated Alaskan villagers face to face with the complexities of bureaucracy, corporate enterprise, and the potential for unprecedented economic growth and development.

Incorporating villagers. Briefly, funds for reclaiming the land are administered through 12 regional corporations and more than 200 village cor-

—in rural as well as urban areas—are shifting from agricultural work to white-collar jobs and employment in business and industry.

This change involves not only a different set of skills, but also a different approach to life. Long-held values and concepts such as sharing and cooperation are bowing to aggressiveness and competition, a sense

porations composed of native stockholders. Village corporations, which replace reservations in most cases, may select all of the land where their townships are located, plus some acreage for future growth. Their first responsibility is to convey surface titles of various tracts to the native or non-native occupants of the land.

Mineral rights are vested in the regional corporations, but subsurface development on village land is subject to the approval of the village corporations.

This is a landmark program for Alaska natives. Many of the Indian, Eskimo, and Aleut villagers are entering the market system for the first time with newly acquired lands, mineral resources, and business enterprises. For them, this means adapting to new roles requiring an understanding of complex business and legal matters, and a different pattern of living and working.

Boosting program responsibilities. Indians are also being encouraged to participate more actively in a number of Federal programs dealing with health care, education, and economic development.

The usual approach is to place greater decisionmaking responsibility in Indian hands, and wherever possible, to contract with tribal governments for the actual operation of programs and services. Technical assistance is available for local projects and business enterprises initiated by the tribes themselves.

Under contract with the Indian Health Service, several Indian groups have undertaken their own health care systems. The California Rural Indian Health Board now provides health services to about 38,000 Indians in 32 counties and 50 reservations.

Moving toward management. In the Eastern U.S., the United Southeastern Tribes Intertribal Council is coordinating health care delivery to Indians living in Mississippi, Louisiana, North Carolina, and Florida. Some groups, such as the Navajo Health Authority, are moving into

the management side of comprehensive health programs.

On a smaller scale, many other reservation Indians are becoming more active in evaluating existing services, extending acceptance of health programs among the poor and uneducated, and devising new methods of solving health problems.

In the education field, Indians have varying levels of responsibility for school operations. Involvement may range from voluntary participation in planning or conducting special education programs to a high degree of control through school boards and school management contracts with the Bureau of Indian Affairs.

Improving education. Some cooperative efforts have been made by Indian educators, tribal groups, and individuals to improve the quality and scope of education at all levels. For example, Indian educators have offered technical assistance to communities wishing to establish school boards, and have reviewed and evaluated the educational status of Indian school children.

Greater emphasis has also been focused on the expansion of economic opportunities on reservations. Besides Federally assisted efforts to attract industry and manpower training projects to reservation sites, Indians have taken the initiative in organizing and promoting some of their own business activities.

Indian businesses. For example, the Navajos invested \$8.5 million 10 years ago in the Navajo Forest Products Industries. Since then, the tribe has earned profits of about \$30 million.

Another Indian-sponsored enterprise is the creation of an American Indian Bank, owned and operated by Indians as a source of financing for economic development programs.

Other tribal ventures include promoting tourism on Indian lands and training and employing Indians in skilled construction work.

Most of these activities represent a break from past patterns and will have an influence on Indian lifestyles and culture in this period of

transition. However, customs and values do not yield quickly or easily to change. Given the diversity of the Indian population, the pace and direction of future changes may vary widely.

[Based on special material by Helen W. Johnson, Economic Development Division. Quotations from *Touch the Earth: A Self-Portrait of Indian Existence*, compiled by T. C. McLuhan.]

Consumers Brace For Rising Food Prices

Here's the latest word on what consumers can expect in the way of food price changes in 1975.

According to a USDA staff economist, food prices at the grocery store will advance 3-4 percent per quarter in first half 1975, or at an annual rate of 15 percent. This assumes there will not be a sharp collapse in domestic food demand at home and abroad.

By contrast to the large increases in farm-retail price spreads in 1974, processing and marketing costs are forecast to rise more in line with overall price trends. Even so, farm-to-retail spreads are apt to be wider than in most other recent years.

Prices for food eaten away from home are likely to climb less rapidly in the first half of next year, reflecting erosion in consumers' real incomes.

"Supply-demand prospects are highly uncertain," says the staff economist. If weather cooperates, and economic activity slackens more than anticipated, production gains relative to demand growth could be quite sizable and lead to a slowdown in price rises.

On the other hand, another year of bad growing conditions at a time when world food needs are expanding could ignite a rapid pace of food price advances throughout 1975.

On balance, U.S. consumers can look forward to ample food supplies next year, though perhaps slightly less than the record per capita levels of this year.

Illinois Retains Title As Leading Farm Exporter

Every State benefited from our record \$21.3 billion farm exports last fiscal year, and certain States did well indeed.

Heading the list is Illinois, which exported an estimated \$1.9 billion worth. Others in the top five: Iowa, \$1.8 billion; Texas, \$1.7 billion; Kansas, \$1.6 billion; and California, \$1.2 billion.

Together these States registered export sales of \$8.2 billion—more than a third of the national tally. They also made the top five in fiscal 1973, and they finished in the same order as in fiscal 1974.

Wheat was the leading export commodity with shipments of \$4.7 billion, double the 1973 level. Kansas provided over a fifth. Another fifth came from North Dakota and Oklahoma. Montana, Nebraska, and Texas each supplied 6 percent of the wheat for export. Texas' sales more than quadrupled.

Feed grain exports, also twice the 1973 figure, rounded out to \$4.7 billion. Illinois, Iowa, and Nebraska accounted for more than 40 percent.

In the soybean column, Illinois and Iowa stole the show with over 35 percent of our soybean and soybean product exports. Other big suppliers were Indiana, Minnesota, Missouri, and Arkansas. Arkansas' sales increased more than any other State's—close to 70 percent over 1973.

State rankings for other major commodities, with total U.S. sales in parentheses:

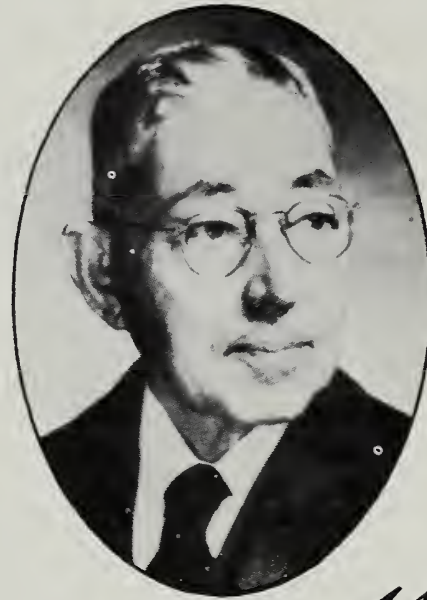
Cotton (\$1.3 billion). Texas, Mississippi, and California.

Tobacco (\$814 million). North Carolina, Kentucky, South Carolina, and Virginia.

Rice (\$752 million). Arkansas, California, Louisiana, and Texas.

Fruits and preparations (\$589 million). California and Florida.

[Based on "U.S. Agricultural Export Shares by Regions and States, 1973/74," article by Sally Breedlove, Foreign Demand and Competition Division, in *Foreign Agricultural Trade of the United States*, November 1974.]



Men and Milestones

Boston, Mass., 1902—Philip W. Ayres accepts the post of executive forester with the Society for the Protection of New Hampshire Forests.

Ayres took the job on one condition: that the Society would support the creation of a National Forest Reserve in the White Mountains of New England. The Society's president heartily agreed to the terms.

So began the 33-year career of Philip Ayres—professional forester, conservationist, and a prime mover in establishing our national forest system in the East.

Like many of his contemporaries, Ayres entered the field of forestry through the back door. Born in Winterset, Iowa, in 1861, he spent his boyhood on his father's fruit farm near Cairo, Illinois. He attended Cornell University, then Johns Hopkins University, where he received a Ph.D. in history. In 1902 he returned to Cornell to study forestry. Later that year Ayres joined the Society for the Protection of New Hamp-

shire Forests.

Ayres maintained that forests could not be properly managed without Federal ownership. For nearly 10 years he promoted this idea, a campaign that led to the passage of the Weeks Law in 1911, authorizing the Federal Government to buy forest lands to protect streams and other watersheds of navigable streams.

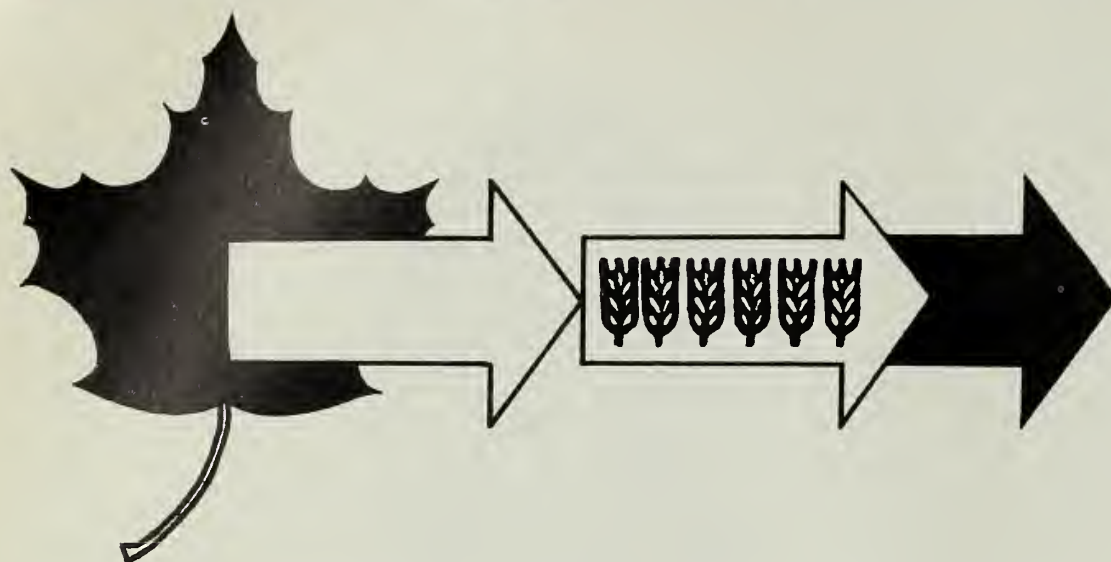
Ayres died in 1945. By then some 900,000 acres of national forest lands had been acquired by the Federal Government in New England alone. Across the country, over 18 million acres had been bought—all under the authority of the Weeks Act.

As of mid-1973, forests purchased under the Weeks Act, along with many other areas since withdrawn from public domain, covered 187 million acres.

Americans spent 188 million 12-hour days on these lands last year, a fitting tribute to a far-sighted conservationist.

[Special material from Gerald R. Ogden, Agricultural History Group.]

CANADA: Push on Exports



When U.S. agribusinessmen sell farm products abroad, it's a good bet they meet up with some Canadians going after the same customers.

For the past several years, our neighbors to the North have been revving up their market development program, for wheat in particular.

Each year the Canadian Federal Government alone allocates up to \$10 million for a new cost-sharing Market Development Fund for Agricultural Products. This is a relatively large sum considering that Canada's farm exports in 1973 came to just \$3 billion. However, total expenditures by the fund can total less than \$10 million in any given year.

Though not the only commodity Canada is pushing, wheat outshines the others. Through most of the 1960's Canadian wheat was generally regarded as the best on the world market, and it was virtually the Dominion's only important farm export. The world market for the Canadian product was stable and there seemed to be little need for promotion abroad.

But in the late 1960's a number of factors combined to send Canada jumping into heated competition with U.S. exporters.

Surpluses weighed on the world wheat market and new technological developments in breadmaking minimized the quality advantage of Canadian wheat. Canada's wheat ex-

ports and share of the world wheat market dropped dramatically.

To make matters worse, the European Community (EC) was tightening its restrictions on imports, and the United Kingdom was expected to join the club. Canada's access to European markets was narrowing at a time when the U.S. was stepping up its sales promotion in Europe to try to minimize its losses from the EC trade restrictions.

The Canadian Government decided to launch projects to expand existing wheat markets, penetrate new ones, and diversify its crop production—away from wheat and toward barley and rapeseed.

In 1972 Canada launched a cost-sharing program for the development of grain and oilseed production, which receives up to \$7 million per year in government funds. In 1973 Canada launched an additional cost-sharing program covering just about every other farm product, with allocations by the Canadian Government of up to \$3 million per year.

Canada now boasts particular success in expanding its market for grains, oilseeds, and pork in East Asia. It has expanded its largest wheat outlets to include Japan, the People's Republic of China, and the Soviet Union, and has also become a major world exporter of barley, rapeseed, linseed, and tobacco.

When world supplies are more abundant, effective promotion in

world wheat markets can give the U.S. a hard time because Canada continues to produce some of the best wheat in the world.

But selling barley and rapeseed as basic ingredients of animal feed is much more difficult. The ingredients offered by U.S. farmers—corn and soybeans—enjoy far greater acceptance in markets around the world.

Besides promoting its products abroad, Canada is attempting to develop new or improved products and processes. Research has centered on developing a kind of dual purpose wheat that would be nutritional enough and cheap enough to substitute for corn in animal feed, and that would be also suitable for bread and noodle making.

Researchers are also trying to make rapeseed meal fit for direct human consumption. If they find a way to economically detoxify rapeseed meal, it would not only increase its use in feed compounds, but would make it acceptable for use in meat extenders, synthetic dairy products, and other foods.

The Canadians are looking at all aspects of the business. They're financing better processing, transportation, and distribution facilities at home, and financing similar investments in potential markets overseas.

Since the beefing up of Canada's agricultural development programs, food surpluses have about disappeared, and the world market has tightened up. This is anything but a straight cause-effect relationship, however, since world weather and market conditions have been chaotic in the past few years. Thus, it's difficult to assess the impact of the promotional programs.

If and when world demand for farm products slackens, however, and the need to seek out and develop new markets becomes more pressing, Canada's competitive position is expected to benefit greatly as a result of its new programs.

[Based on the manuscript *Canada's Export Market Development for Agricultural Products*, by Omero Sabatini, Foreign Demand and Competition Division.]

Vicious Production/Sales Circle Puts Egg Industry In Bad Shape

It's the time-old question—which comes first, the chicken or the egg? Consumers are buying fewer eggs and farmers are raising fewer chickens.

Poultry records for 1960 show that the average American ate 334 eggs that year. By 1973 that figure had dropped to 294, the lowest since the mid-1930's. Agriculture experts predict that consumption may drop another 8-10 eggs per person during 1974.

Total egg production in 1973, though down 4 percent from 1972, was still about 2 percent above 1960. On the other hand, egg consumption lagged far behind growth in population since 1960, which gained 17 percent.

Why the fall of the egg?

As every housewife knows, the cost of eggs has been rising along with most everything else. And with the cost of living up so high, many egg eaters are cutting down, although eggs are a fairly cheap protein source. Much of the decline in egg consumption has resulted from a change in eating habits. The cholesterol scare hasn't helped egg consumption either.

Tight feed grain supplies also have lifted the price of chicken feed. So the poultry farmer has to sell his eggs at a higher price to meet production costs, which have reached their highest levels in many years. Besides paying stiff feed prices, farmers are shelling out considerably more for fuel, utilities, materials, and interest charges.

It's a vicious circle. Housewives aren't buying... farmers aren't able to produce. Where do we go from here?

Government economists say that it may be well into 1975 before egg production will be turned around, and only then if egg producers are able to make a profit.

[Based on special material from William E. Cathcart, Commodity Economics Division.]

Off the Record

Farm sales—but not incomes—shattered records in 1974.

Farmers earned an unprecedented \$94½ billion from sales in 1974, plus some \$0.6 billion in Government payments. This drove gross farm returns an estimated \$5 billion over 1973's record.

Here's the kicker.

The additional receipts weren't enough to offset spiraling farm production costs. These boomed to an alltime high of \$75 billion, trimming about \$5 billion from the record \$32 million netted by farmers in 1973.

The gross income picture was divided sharply between the crop and livestock sectors. Crop receipts jumped roughly \$8 billion over the 1973 record. But livestock prices fell a tenth, and receipts slumped about \$2 billion, despite larger marketings.

As for net incomes, livestockmen probably absorbed more of the decline than crop producers, due to soaring feed costs and sagging slaughter cattle prices.

But cattle finishers did get one break. Feeder cattle prices declined in 1974, unlike costs of most other inputs.

[From *Agricultural Outlook Digest*, AOD-205, December 1974.]

Plastic Cartons Seal Up A Fourth of Milk Sales

Glass milk bottles have all but gone the route of the old horse-drawn milk wagons.

Most housewives today are buying their milk directly from dairy stores and supermarkets, and they're buying it in half-gallon or gallon plastic containers.

Ten years ago, home delivery routes took in 30 percent of total milk sales. By the end of last year, their sales had shrunk to 10 percent. Wholesale outlets picked up the slack, with paper and plastic containers showing rapid growth.

Almost nonexistent 10 years ago, plastic containers accounted for almost a fourth of total milk sales last year. Over half the gallon containers were plastic. Paper milk cartons are still the most popular containers, but

their use is on the wane.

Remember when we bought milk in quarts? Recently the trend has been to larger containers, first to half-gallons and now to gallons. In fact, gallons have become the best-selling container for wholesale outlets.

The only container size with stable sales over the last 10 years is the half-pint. And as long as schools are in session, half-pints will hold their own.

[Based on the *Dairy Situation*, DS-353, November 1974, by Robert R. Miller, Commodity Economics Division.]

Drought and Inflation Brew Stiff Tea Prices

Americans are sipping more tea than ever these days, but they'll soon be reminded that it doesn't grow on trees—prices are going up.

Tea imports are soaring and consumption is on the upswing. We brought in 173 million pounds in 1973, a 13-percent jump over the previous year. For the first 8 months of 1974, imports gained 16 percent from the 1973 period.

Tea prices lagged far behind most other foods in price rises over the past few years, and the price of a carton of tea bags rose only 6 percent this past year. But things are brewing and a steep rise is expected by the end of 1974. The reason: a drought in most tea producing areas of East Africa, and a poor crop in Ceylon. Inflation and world monetary conditions have also played a role in rising tea prices.

Meantime, our thirst for tea continues to mount. Consumption in 1974 is expected to climb over eight-tenths of a pound per person (dry leaf basis)—a new record and about a fourth more than in 1960.

One explanation might be tea's escape from the cup and saucer. Six-packs of tea beverage in 12-oz. cans are becoming popular, and sales are up for instant tea mixes.

[Based on special material from Frederick D. Gray, National Economic Analysis Division, and Rex E. T. Dull, Foreign Agricultural Service.]



Sunny future for Sunflowers

"From this valley they say you are going . . ."

As sunflowers go, you can forget that lyric.

Raised if not born in the Red River Valley of the Dakotas and Minnesota, the sunflower is not about to desert the old homestead.

Rather, the seeds of the parent stock are winging their way to new places where soil and climate welcome the likes of this up-and-coming oilseed—west and south of the Red River Valley.

Sunflowers are on the move all right, and they promise to become a rich well of vegetable oils for margarine and mayonnaise and as a cooking fat that offers some pluses over the traditional types.

Selling points. For one, sunflower oil can be reheated and re-used several times without breaking down or developing an off flavor, just what the potato chip maker ordered. And it's high in unsaturated fats, just what the doctor ordered.

Farmers, naturally, are mainly interested in the money end. Market prices for sunflowerseed have doubled and tripled in the last couple of years. And going back a decade, the farm value of this crop in the three key sunflower States of Minnesota, North Dakota and South Dakota sprouted from under \$2 million to more than \$100 million. Farmers in other States, particularly Texas, are tracking the sunflower boom as they eye the steady growth in demand for vegetable oils.

Sunflowers vs. soybeans. Soybean oil, long No. 1 in the vegetable oil league, is in such demand that prices have doubled in the last year. However, farmers haven't planted as

much land to beans as expected because feed grain prices have looked even more attractive than soybeans'. If this goes on, soybeans will be hard put to capture any more big blocks of land in the prime areas of the Midwest.

But consider the regions west of Iowa, from Texas to North Dakota, where feed grains, soybeans, and cotton don't dominate available croplands. This could be sunflower territory. Except for wheat and grain sorghum, major cash crops don't do as well there.

Nothing serious. True, this year's sunflower crop had a setback. Bad weather kept farmers from getting the crop in on time and yields suffered. But sunflowers did as well or better under such conditions than any of the basic crops. Sunflowerseed output may round out to only some 640 million pounds instead of the 778 million in 1973. Reduced acreage, reflecting keen competition from alternative crops, also played a part.

Still, throughout the U.S., farmers planted 455,000 acres in sunflowerseed this year, quite a jump from just 96,000 in 1967. In 1975, according to trade sources, the figure could exceed 870,000 acres.

As price goes, so go farmers' expectations of profits. Up till 1973, farm prices for sunflowerseed of any type rarely topped 5 cents a pound. This year, sunflowerseeds for crushing have been bringing upwards of 22 cents in the Red River Valley.

Without the lively demand for vegetable oils here and abroad, and without certain farm price support programs, sunflowerseeds might not

have the sunny future they have today.

Place in the sun. After 1970, foreign production of vegetable oils tilted, and world consumers of sunflower oil turned to the U.S. for supplies, specifically to the Red River Valley and nearby counties in Minnesota and North Dakota. Foreign buyers, chiefly Europeans and Japanese, imported 394 million pounds of U.S. sunflowerseed from the 1972 crop and 457 million from the 1973 crop.

Yet so strong was our own demand for sunflower oil and seeds that in the marketing year ended September 1974, we exported only 17 million pounds. This year both seed and oil exports are expected to dip as U.S. users outbid foreigners.

While quick export demand goaded U.S. farmers to grow more sunflowers, domestic policy for agriculture played a hand.

Room to grow. During 1961-73, farmers could set aside or divert a certain number of acres from basic crops like feed grains or wheat to an approved conservation use, and they got paid a certain amount per acre for what they set aside. Farmers participating in the programs could opt to plant alternative crops on the set-aside acreage, such as sunflowers.

In 1972, world prices for sunflowerseed and other oilseeds firmed up. Farmers in most every State—at least those who had grown sunflowers before—decided to capitalize by upping sunflower plantings.

In 1973, our farm policy took a turn. Basic crops captured the limelight, as officials pulled the stops on production restrictions.

By this time, though, prices for sunflowerseed and other oilseeds had gone through the roof. Farmers accustomed to growing sunflowers kept on doing it.

[Based on "U.S. Sunflowerseed Situation," *Fats and Oils Situation*, FOS-275, November 1974, by Francis G. Thomason, Agricultural Stabilization and Conservation Service.]

Recent Publications

Beliefs and Values in American Farming. James L. Gulley, formerly with the Farm Production Economics Division. ERS-558.

Freedom, independence, and the rugged self-sufficiency of the family farm are still ideals that sway our thinking, even though the economic and social forces that molded them have long since changed. This report examines the historical roots of America's agrarian philosophy, and traces its interaction with the evolving technological environment of a developing nation. It discusses the influence of the Protestant work ethic, the value of property, and the frontier psychology on agricultural values, as well as how beliefs born in the past can be adjusted to the framework of an increasingly complex modern society.

Our Land and Water Resources: Current and Prospective Supplies and Uses. Prepared under the direction of Howard Hill, Orville Krause, and Robert Boxley, Natural Resource Economics Division. Misc. Pub. No. 1290.

Prepared as background information for land use policy discussions, this report provides a summary of current rural land and water uses as well as projections of future agricultural resource requirements to the year 2000. Environmental and technological factors affecting the availability of land and major land use problems are also explored. Overall the outlook is bright—efficient production methods, a declining rate of population growth, and abundant land and water resources should more than ensure our domestic food and fiber needs in coming years.

Farm Real Estate Market Developments: Supplement No. 2, Indexes of Farm Real Estate Values Per Acre, 1912-72. Statistical Reporting Service. CD-77.

Data in this report show the relationship of the value of an acre of farm real estate (farmland and buildings) in each year from 1912 through 1972 to the value in the base year 1967, by State.

Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1664-So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by () may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.*

Migrant Response to Industrialization in Four Rural Areas, 1965-70. Duane A. Olsen, University of Nebraska, and John A. Kuehn, Economic Development Division, in cooperation with the University of Missouri Agricultural Experiment Station. AER-270.

Researchers surveyed four industrializing rural areas in the South and Southwest to determine the level of competition for jobs between area residents and newcomers to the communities. Their findings indicated that rural industrialization programs are likely to experience some leakage of jobs to in-migrants, who are generally younger and better educated than the local work force. On the plus side, the inflow of new workers might help revitalize rural areas.

Western Europe's Beef Production, Consumption, and Trade: Situation and Outlook. Donald M. Phillips, Jr., Lorin O. Lovfald, and Reed E. Friend, Foreign Demand and Competition Division. ERS-For. 367.

West European beef and veal imports will fall sharply in 1974, as beef consumption remains depressed and production continues to increase. Imports from non-West European suppliers—mainly Latin America, Eastern Europe, and Oceania—will likely bear the brunt of the decline as West European governments enact import restrictions. High beef production levels are expected to continue into 1975 and 1976, and although consumption should pick up somewhat in that period, imports will probably remain low.

U.S. Food Fat Consumption Trends. George W. Kromer, Commodity Economics Division. Reprinted from the *Fats and Oils Situation*, April 1974. ERS-552.

According to this report, Americans have been eating considerably more food fats in the past decade—both the visible kinds in margarine and cooking oils, and the invisible kinds in meat, fish, and poultry. The article also discusses consumption shifts from animal fats to vegetable oils and from solid fats to liquids; the rising dominance of soybean oil in fat products; and usage trends in table spreads, salad oils, and cooking fats.

Farm Income: State Estimates, 1949-73. Farm Income Research Area, National Economic Analysis Division. FIS-224 Supplement. September 1974.

This supplement to the July 1974 *Farm Income Situation* includes tables for each State showing realized gross and net income from farming; realized gross and net income, and total net income per farm; farm production expenses; cash receipts for major commodities; and government payments for various agricultural programs. For 1973, States are ranked by cash receipts, and by marketings of 25 leading commodities.

Employment in Agricultural and Agribusiness Occupations. Economic Research Service, in cooperation with the Bureau of the Census, Office of Education, Manpower Administration, and Bureau of Labor Statistics. ERS 570-580.

This 11-volume series provides the results of a 6-year interagency project to identify and define agribusiness occupations and the industries where these occupations are located. Summary data for the U.S. are given in the first volume, and each of the 10 regional volumes contains breakdowns by State of the number of workers in various industries and occupations related to farm production or agribusiness fields.

Farmland Use Values Versus Market Prices in Three Oregon Land Markets. William D. Crowley, Jr., National Economic Analysis Division. ERS-550.

This publication demonstrates techniques for analyzing farm real estate market relationships using data from farmland sales in three areas of Oregon during 1965-69. In each area, researchers found, property characteristics besides those relating to agricultural uses and net rent income apparently influenced prices paid for land.

Demand for Soybean Meal in Denmark. Marshall H. Cohen, Foreign Demand and Competition Division. ERS-For. 368.

Denmark's use of soybean meal is projected to total 756,000 tons in

1980—a boost of 60 percent since 1969. With Danish membership in the European Community, livestock and poultry production is expected to expand strongly in the next few years, and much of the increased demand for soybean meal will probably occur in the milk and pork sectors. Consumption of soybean meal is also projected to rise in the beef and veal, poultry meat, and egg sectors.

Indices of Agricultural Production for the Western Hemisphere Excluding the United States and Cuba, 1964 Through 1973. Latin America Program Area, Foreign Demand and Competition Division. ERS-Foreign 264.

This publication provides indices of total and per capita agricultural output and food production for Canada and 22 countries in the Carib-

bean and Central and South America. In addition, indices of total production and value have been tabulated by major commodities for each country.

Fertilizer Use in Montana. Walter G. Heid, Jr., Commodity Economics Division, and Donald K. Larson, National Economic Analysis Division. Montana Agricultural Experiment Station Bull. No. 628.

This report looks into the growing economic importance of fertilizer use in Montana—a State where relatively little commercial fertilizer was applied to dryland areas until the 1960's. In the past decade, however, Montana's fertilizer usage has skyrocketed about 441 percent, and these gains are detailed by counties and by years.

Addresses of State experiment stations:

This ready reference list for readers wishing to order publications and source material published through State experiment stations will be updated again in July 1975.

STATE	CITY	ZIP CODE			
ALABAMA	Auburn	36830	NEW HAMPSHIRE	Durham	03824
ALASKA	University of Alaska	99701	NEW JERSEY	New Brunswick	08903
ARIZONA	Tucson	85721	NEW MEXICO	Las Cruces	
ARKANSAS	Fayetteville	72701		N.M. State University	
CALIFORNIA	Berkeley	94720		(P.O. Box 3-BF)	88001
	Davis	95616	NEW YORK	Ithaca	
	Parlier	93648		(Cornell Station)	14850
	Riverside	92502		Geneva	
	(Citrus Research Center)			(State Station)	14456
COLORADO	Fort Collins	80521	NORTH CAROLINA	Raleigh	27607
CONNECTICUT	New Haven	06504		(Box 5847)	
	Storrs	06268	NORTH DAKOTA	Fargo	58102
DELAWARE	Newark	19711		(State University Station)	
FLORIDA	Gainesville	32601	OHIO	Columbus	43210
GEORGIA	Athens	30602		(Ohio State University)	
	Experiment	30212		Wooster	44691
	Tifton	31794	OKLAHOMA	Stillwater	74074
GUAM	Agana	96910	OREGON	Corvallis	97331
HAWAII	Honolulu	96822	PENNSYLVANIA	University Park	16802
IDAHO	Moscow	83843		(106 Armsby Building)	
ILLINOIS	Urbana	61801	PUERTO RICO	Rio Piedras	00928
INDIANA	Lafayette	47907	RHODE ISLAND	Kingston	02881
IOWA	Ames	50010	SOUTH CAROLINA	Clemson	29631
KANSAS	Manhattan	66506	SOUTH DAKOTA	Brookings	57006
KENTUCKY	Lexington	40506	TENNESSEE	Knoxville	37901
LOUISIANA	Baton Rouge	70803	TEXAS	College Station	77843
MAINE	Orono	04473	UTAH	Logan	84322
MARYLAND	College Park	20742	VERMONT	Burlington	05401
MASSACHUSETTS	Amherst	01002	VIRGINIA	Blacksburg	24061
MICHIGAN	East Lansing	48823	VIRGIN ISLANDS	St. Croix	00850
MINNESOTA	St. Paul	55101	WASHINGTON	Pullman	99163
MISSISSIPPI	State College	39762	WEST VIRGINIA	Morgantown	26506
MISSOURI	Columbia	65201	WISCONSIN	Madison	53706
MONTANA	Bozeman	59715	WYOMING	Laramie	82070
NEBRASKA	Lincoln	68503		(University Station	
NEVADA	Reno	89507		Box 3354)	

INDEX to the Farm Index

January through December 1974

References to this index are by month and page

Month/Page

A

Advertising: cheese and butter promotion, 5/19; confusing food ads, 2/21.
Africa: U.S. exports to, 4/21.
Aging: attitudes, 1/9.
Agricultural services: custom harvesting, 6/8, 9/7; farm suppliers, 2/9.
Aldrin: impact of ban, 5/9.
Amaryllis: Christmas plant, 11-12/6.
Apples: consumer use, 1/14; pesticide use, 11-12/11.
Asia, West: U.S. exports to, 4/21.
Away-from home eating: 10/8.

B

Balance sheet: farm sector, 10/16; liquid assets, 10/8.
Bailing wire: shortage, 1/6.
Barley: Canadian promotion, 11-12/16.
Beans: processed green bean supplies, 6/13.
Beef: behind high prices, 3/12; consumption, 3/16; Japanese Ise Matsuzaka, 8/20; marketing margins, 5/13; retained cattle ownership, 1/17; soy-beef blends, 4/8; streamlining meat marketing, 9/4.
Blacks: See Minorities.
Brazil: oilseed meal supplies, 1/20; soybean production, 11-12/8.
Bread: marketing margins, 5/13; prices, 7/8.
Broilers: consumption, 10/18.
Business: food and fiber contribution to economy, 5/20; non-farm firms with farming ties, 4/4.
Butter: promotion, 5/19; supplies, 1/14; vs. margarine, 7/4. See also Dairy.

C

California: farm cash receipts, 10/17; fresh tomatoes, 10/7; tomato prices, 4/15.
Canada: custom harvest crews, 6/8; farm production, 10/19; market development, 11-12/16; U.S. exports to, 1/20, 4/21.
Candy: prices, 3/17.
Cattle: numbers, 4/15; retained ownership, 1/17; runoff control, 2/4.
Celery: production and margins, 5/21.
Cheese: production, 10/11; promotion, 5/19.
Chicken: See Poultry.
China, People's Republic of: farm production, 1/19, 10/19; U.S. exports to, 3/21, 4/18, 4/21.
Cigarettes: consumption, 6/2.
Cities: vs. rural population growth, 3/9.
Citrus: production, 1/12. See also by individual types.
Coal: future needs, 11-12/4; Great Plains development, 9/8; mineral leasing guidelines, 10/12.
Cocoa: prices and supplies, 3/17.
Coconuts: Philippine exports, 1/21.
Coffee: production and consumption, 4/20.
Convenience foods: dehydrated potatoes, 6/7; institutional market, 4/17; processed oranges, 1/12; processed vegetables, 6/6; vs. fresh foods, 5/14.
Corn: impacts of aldrin ban, 5/9; pesticide use, 11-12/11; processed sweet corn supplies, 6/13.
Corporations: farmland ownership, 8/6; in farming, 4/6.
Cotton: children's clothing, 5/19; cost-cutting limited tillage, 8/11; demand, 1/17; exports, 11-12/15; fiber market, 11-12/8; gin-

ning costs, 9/10; pesticide use, 11-12/11; place in world fiber market, 8/18 production, 4/2; production and costs, 3/4; situation 11-12/2; world demand and supply, 8/19.
Credit: equity financing, 4/6; farm debt, 8/5; tax tips, 1/4. See also Finance.
Crops: land formerly in, 11-12/7. See also by specific types.
Custom feeding: retained ownership programs, 1/17.

D

Dairy: EC farm policy, 1/18; 1973 exports, 4/20; numbers, 8/15; runoff control, 2/4; William D. Hoard, 10/11. See also by specific products.
Developing countries: food needs, 8/12; high-yielding grain acreage, 7/12; protein needs, 9/11.

E

Education: average years of, 5/5; school enrollment, 5/5.
Eggs: consumption and prices, 11-12/17; marketing margins, 5/13. See also Poultry.
Employment: energy crisis impact, 2/19; farmers vs. laborers, 4/16; off-farm income, 8/4; off-farm population, 8/20; rural commuters, 3/11. See also Labor.
Energy: future needs, 11-12/4; Great Plains coal boom, 9/8; impact of crisis on rural areas, 2/19; mineral leases, 10/12.
Environment: runoff control, 2/4; water pollution laws, 5/11. See also Pollution.
EPA: runoff control regulations, 2/4.
European Community: farm policy, 1/18; U.S. exports to, 4/18, 4/21.
Exchange rates: grain sales to Japan, 8/8; U.S. export prices, 8/11.
Exports: biggest buyers, 1/20; Canadian wheat, 11-12/16; cotton, 8/19; fiscal 1974, 4/21; honey, 3/18; impact of change in yen-dollar exchange rates, 8/8; knits, 10/17; 1973 data, 3/21; 1973 record, 4/18; price variations, 8/11; record rise, 3/20; role in economy, 4/19; State leaders, 11-12/15; statistical summary, 1/21; sunflower products, 11-12/18; Tanzanian, 5/15; to Mexico, 10/18; to Philippines, 1/21; world food needs, 8/12.

F

FAO: food reserve plan, 1/20, 10/21.
Farms: assets, 4/6, 10/16; debt, 8/5; equity financing, 4/6; everybody's share, 4/16; future energy needs, 11-12/4; input suppliers, 2/9; land ownership, 1/7; large, 9/6; living history, 3/7; machinery sales, 8/15; 1974 income, 11-12/17; nonfarm business ties, 4/4; nonfarm land owners, 8/8; North Central States' productive capacity, 5/6; Northeast productive capacity, 3/14; numbers, 3/15; on rented land, 2/17; population, 8/20; real estate taxes, 3/15; real estate values, 3/8; Southern productive capacity, 4/14; Western productive capacity, 7/6.
Fats and oils: consumption, 5/8; in livestock rations, 8/7; palm oil demand, 11-12/7. See also Oilseeds.
Feed: additives, 8/7; fats and oils, 8/7; oilseed meal supplies, 1/20; roughage, 6/13; suppliers, 2/9.
Feed grains: EC farm policy, 1/18; exports, 4/19, 11-12/15; supplies, 8/13.
Fertilizer: demand, 1/8; situation, 5/16;

suppliers, 2/9; world trade, 5/17; world use, 10/21.

Fibers: food and fiber contribution to economy, 5/20; knit trade, 10/17; market situation, 11-12/8; world market, 8/18. See also by specific types.

Finance: equity financing, 4/6; farm assets, 4/6, 10/16; farm debt, 8/5; farm input, 2/9; farmers' liquid assets, 10/8; 1974 outlook, 2/8; tax tips, 1/4.
Fish: consumption, 10/15; protein, 9/11.

Flaxseed: production, 4/2.

Florida: citrus production, 1/12; Mexican vegetable rivalry, 10/10.

Food: advertising confusion, 2/21; away-from-home eating, 10/8; consumer spending, 1/17; consumer survey, 11-12/9; convenience products, 4/17; convenience vs. fresh, 5/14; cutting supermarket costs, 8/9; food and fiber contribution to economy, 5/20; marketing costs, 10/6; price reporting periods, 6/4; prices, 3/2, 4/12, 11-12/14; prices and marketing costs, 5/12; safety, 11-12/11; world population demand, 5/10; world production, 1/19; 10/19; world reserves, 1/20; 10/21; world supply and demand, 8/12. See also Per capita consumption; Nutrition; and Processing, food.

Food stamps: program effectiveness, 10/4.

Fruits: exports, 4/19, 11-12/15. See also by specific types.

Fuel: effects of shortage, 1/17; farm demand, 1/8; future needs, 11-12/4; Great Plains coal boom, 9/8.

Fungicides: expenditures, 11-12/11; use, 4/7.

G

Grains: developing countries' acreage, 7/12; elevator costs, 4/7; 1973 exports, 4/18; pesticide use, 11-12/11; sales to Japan, 8/8; stocks, 4/11; transportation, 2/11, 7/10; world demand and supply, 8/12; world production, 10/19; world reserves, 1/20.

Grapefruit: production, 1/12.

Grapes: mechanical harvesting, 8/10.

Great Plains: custom harvesting, 6/8, 9/7; impact of coal boom, 9/8; mineral leases, 10/12.

H

Hay: twine shortage, 1/6.

Health: attitudes, 1/9; medical services, 5/11, 10/9.

Herbicides: expenditures, 11-12/11; use, 4/7.
Hides: leather processing, 1/15; 1973 exports, 4/19.

Highways: rural commuters, 3/11.

Hogs: runoff control, 2/4; supply management, 3/8.

Honey: prices, 3/18.

Horticultural products: Amaryllis plants, 11-12/6; production and sales, 3/17.

I

Illinois: leading farm exporter, 11-12/15; off-farm income, 8/4.

Imports: diverse Japanese markets, 3/21; from Mexico, 10/18; from Philippines, 1/21; from Tanzania, 5/15; honey, 3/18; knits, 10/17; palm oil, 11-12/6; statistical summary, 1/21; sugar, 9/6; tea, 11-12/17; world food needs, 8/12.

Income: averaging for taxes, 1/4; farmers' liquid assets, 10/8; net farm, 11-12/17; off-farm employment, 8/4; prospects for 1974, 2/8; where it goes, 2/10.

India: production, 10/19; wheat, 7/13.

Indians, American: cultural transition, 11-12/12.

Inputs: fertilizer situation, 5/16; fuel and fertilizer, 1/8; future energy needs, 11-12/4; in cutting cotton costs, 8/11; role of farm suppliers, 2/9; tobacco production costs, 10/18.

Insecticides: spending, 11-12/11; use, 4/7.

Iowa: farm exports, 11-12/15; top farm marketer, 10/17.
Irrigation: competition from coal, 9/9; small watershed program, 8/16; Western needs 7/7.

J

Japan: Ise Matsuzaka beef, 8/20; seeks other import sources, 3/21; U.S. exports to, 1/20, 3/21, 4/18, 4/21; U.S. grain sales, 8/8.

K

Knits: trade, 10/17.

L

Labeling: processed vegetables, 2/21.
Labor: farmers vs. nonfarmers, 4/16; flue-cured tobacco, 1/16, 10/18.
Lamb: population, 6/13.
Land: differential tax assessment, 4/10; everybody's share, 4/16; farm real estate taxes, 3/15; farm vs. nonfarm owners, 8/8; farmland transfers, 8/6; farmland values, 7/7; former cropland, 11-12/7; in farms, 3/15; mineral lease guidelines, 10/12; North Central States' productive capacity, 5/6; Northeast productive capacity, 3/14; ownership, 1/7; real estate values, 3/8, 8/6, 10/16; rented farmland, 2/17; Southern productive capacity, 4/14; Western productive capacity, 7/6.
Leather: pollution-free processing, 1/15.
Legislation: water pollution, 5/11.
Lettuce: marketing margins, 5/13.
Livestock: impact of feed additive ban, 8/7; on roughage, 6/13; pesticide use, 11-12/11; runoff control, 2/4. See also by specific types.
LP gas: demand, 1/8; future needs, 11-12/4.

M

Machinery: See Mechanization.
Manure: runoff control, 2/4.
Margarine: palm oil use, 11-12/7; rise of, 7/4.
Marketing: beef prices, 3/12; Canadian farm products promotion, 11-12/16; cheese and butter promotion, 5/19; consumer food spending, 1/17; costs, 10/6; costs and spreads, 5/12; cutting supermarket costs, 8/9; food advertising, 2/21; food industry survey, 11-12/9; food packaging costs, 4/11; food prices, 4/12; future energy needs, 11-12/4; hog supply management, 3/8; poultry margins, 4/9; soy-beef blends, 4/8; streamlining meat marketing, 9/4; top farm States, 10/17.
Marketing margins: beef, 9/4; stewing hens, ducks, and geese, 8/17.
Meat and meat products: proper handling, 11-12/11; protein extenders, 9/11; streamlining meat marketing, 9/4; world production, 10/19. See also by specific types.
Mechanization: custom harvesting, 6/8, 9/7; farm machinery sales, 8/15; flue-cured tobacco, 1/16; grape harvesting, 8/10; machinery suppliers, 2/9; raisins, 4/10.
Medical services: distances to, 10/9; physician "extenders," 5/11.
Men and Milestones: Philip W. Ayres, 11-12/15; Oliver Edwin Baker, 6/12; William D. Hoard, 10/11; Lue Gim Gong, 1/11; Alfred Charles True, 3/6; Frederick V. Waugh, 4/17.
Mexico: competition for Florida vegetables, 10/10; farm exports, 10/18; farm production, 10/19.
Migration: return, 3/9, 10/17; southern blacks, 5/4.
Milk: containers, 11-12/17. See also Dairy
Mineral leases: guidelines, 10/12.
Mining: Great Plains coal boom, 9/8; mineral lease guidelines, 10/12.
Minorities: black migration, 5/4; farm population, 8/20; Indian cultural adjustments, 11-12/12; return migration, 3/9, 10/17.

Mobile homes: community services, 1/10.
Mohair: production, 7/9.

N

Nitrogen: fertilizer situation, 5/16.
Noncellulosics: fiber market, 11-12/8; world market, 8/18.
North Central States: productive capacity, 5/6.
Northeast: productive capacity, 3/14.
Nursery products: production, 3/17.
Nutrition: protein dependency, 9/11; whey-soy drink mix, 3/19; world food output, 5/10, 8/12.

O

Oil: mineral lease guidelines, 10/12.
Oilseeds: Brazilian soybean output, 11-12/8; consumption, 5/8; exports, 4/19; margarine manufacture, 7/5; meal supplies, 1/20; palm oil demand, 11-12/7; production, 4/2; protein sources, 9/11; sunflowers, 11-12/18; world production, 10/20.
Orange juice: fresh vs. frozen costs, 3/18; marketing margins, 5/13; per capita consumption, 1/13.
Oranges: Lue Gim Gong, 1/11; production, 1/12; supplies, 5/7.
Ornamentals: Amaryllis, 11-12/6; production and sales, 3/17.

P

Packaging: costs, 4/11; milk containers, 11-12/17.
Palm oil: demand, 11-12/7.
Panir: protein source, 9/13.
Peanuts: consumption, 3/18; pesticide use, 11-12/11; production, 4/2.
Peas: processed supplies, 6/13.
Per capita consumption: all foods, 5/2; beef, 3/16; broilers, 10/18; butter, 7/5; coffee, 4/20; eggs, 11-12/17; fats and oils, 5/2; fibers, 8/18; fish, 5/2, 10/15; food fats, 5/8; fruit, 5/2; margarine, 7/5; meat, 2/15, 5/2; orange juice, 1/13; peanuts, 3/18; pork, 3/16; poultry, 5/2; Russian meat, 2/15; tea, 11-12/17; veal, 3/16; vegetables, 5/2, 8/8.
Pesticides: expenditures, 11-12/11; impact of aldrin ban, 5/9; manufacturers, 2/9; use, 4/7.
Philippines: U.S. treaty, 1/21.
Phosphate: fertilizer situation, 5/16.
Pineapple: Philippine production, 1/21.
Pollution: leather processing, 1/15; water pollution laws, 5/11.
Population: on farms, 8/20; rural vs. urban, 3/9; small towns, 4/5; world food needs, 5/10.
Pork: consumption, 3/16. See also Meat and meat products.
Potash: fertilizer situation, 5/16.
Potatoes: dehydrated, 6/7.
Poultry: broiler consumption, 10/18; egg consumption and prices, 11-12/17; marketing margins, 4/9; stewing hens, ducks and geese, 8/17. See also by specific types.
Poverty: who and where, 3/11.
Processing: leather, 1/15.
Processing, food: citrus, 1/12; future energy needs, 11-12/4; new convenience products, 4/17; vegetables, 6/6.
Productive capacity: by region to 1985—North Central 5/6, Northeast 3/14, South 4/14, West 7/6.
Protein: EC farm policy, 1/18; new products, 9/11; whey-soy drink mix, 3/19; world food needs, 8/12.

R

Railroads: capacities, 7/10, 10/8.
Raisins: mechanized harvesting, 4/10.
Rapeseed: Canadian promotion, 11-12/16.
Real estate: farm assets, 10/16; farmland ownership, 1/7; farmland transfers, 8/6; farmland values, 3/8, 7/7, 8/6; taxes, 3/15.

Recreation: watersheds' contribution, 8/16.
Rice: exports, 11-12/15; exports to Philippines, 1/21; world production, 10/19.
Runoff: control impacts, 2/4.
Rural life: aging and attitudes, 1/9; energy crisis impact, 2/19; future energy needs, 11-12/4; Great Plains coal development, 9/8; medical services, 5/11, 10/9; mobile homes, 1/10; population turnaround, 3/9; return migration, 10/17; small town population, 4/5.

S

Safety: food care, 11-12/11; turkey, 10/2.
Schools: educational levels, 5/5; enrollment, 5/5.
Sheep: numbers, 6/13.
South: productive capacity, 4/14.
Soviet Union: See U.S.S.R.
Soybeans: beef-soy blend, 4/8; Brazilian production, 11-12/8; EC farm policy, 1/18; exports, 4/18; 11-12/15; pesticide use, 11-12/11; production, 4/2; sales to Japan 8/8; transportation, 2/11; whey-soy drink mix, 3/19.
Sugar: Philippine exports, 1/21; prices and supplies, 9/6.
Sunflowers: vegetable oil source, 11-12/18.
Supermarkets: consumer survey, 11-12/9; cost cutting, 8/9; marketing costs, 5/12.
Surveys: custom harvesting, 6/8, 9/7; food industry, 11-12/9; vegetable buying, 2/20.

T

Tanzania: agricultural profile, 5/15.
Taxes: differential assessment, 4/10; farm real estate, 3/15; mobile homes, 1/10; tips, 1/4.
Tea: consumption and prices, 11-12/17.
Tobacco: chewing tobacco production, 10/15; cigarette consumption, 6/2; exports, 11-12/15; flue-cured production costs, 10/18; mechanization, 1/16; stocks, 7/2.
Tomatoes: California fresh, 10/7; consumer preferences, 3/18; cost-price squeeze, 4/15; processed supplies, 6/7.
Trade: See Exports and Imports.
Transportation: as input industry, 2/9; coal demands, 9/8; grain fleet tie-ups, 7/10; grains and soybeans, 2/11; railcars, 10/8.
Turkey: cooking tips, 10/2; food ad confusion, 2/21. See also Poultry.
Twine: shortage, 1/6.

U

U.S.S.R.: farm production, 1/19, 10/19, information exchange with U.S., 2/12, 6/10; oilseed meal supplies, 1/20; U.S. exports to, 1/20, 4/18, 4/21.

V

Veal: production and consumption, 3/16.
Vegetables: consumer labeling needs, 2/21; consumer purchasing habits, 2/20; consumption, 8/8; exports, 4/19; Florida-Mexico rivalry, 10/10; new products, 2/21; processed supplies and prices, 6/6. See also by specific types.

W

Water: pollution laws, 5/11; small watershed program, 8/16. See also Irrigation.
Watersheds: numerous uses, 8/16.
Weather: processed vegetable prices, 6/6; world food output, 10/19.
West: productive capacity, 7/6.
West, Quentin M.: U.S.-U.S.S.R. information exchange, 2/12.
Wheat: bread prices, 7/8; Canadian promotion, 11-12/16; exports, 11-12/15; Indian production, 7/13; sales to U.S.S.R., 2/12; world production, 10/19; world food demand, 8/12.
Whey-soy: drink mix, 3/19.
Wool: demand, 1/17; fiber market, 11-12/8; world market, 8/18.

Economic Trends

Item	Unit or Base Period	1967	1973		1974		
			Year	Sept.	July	Aug.	Sept.
Prices:							
Prices received by farmers	1967=100	—	172	191	175	181	178
Crops	1967=100	—	164	182	204	214	211
Livestock and products	1967=100	—	179	198	155	160	154
Prices paid, interest, taxes and wage rates	1967=100	—	145	150	168	173	175
Family living items	1967=100	—	138	142	161	164	166
Production items	1967=100	—	146	154	170	178	182
Ratio ¹	1967=100	—	119	127	104	105	102
Wholesale prices, all commodities	1967=100	—	134.7	139.7	161.7	167.4	167.2
Industrial commodities	1967=100	—	125.9	127.4	157.8	161.6	162.9
Farm products	1967=100	—	176.3	200.4	180.8	189.2	182.7
Processed foods and feeds	1967=100	—	148.1	156.3	167.6	179.7	176.8
Consumer price index, all items	1967=100	—	133.1	135.5	148.3	150.2	151.9
Food	1967=100	—	141.4	148.3	160.5	162.8	165.0
Farm Food Market Basket: ²							
Retail cost	1967=100	—	142.3	150.7	159.7	162.0	164.3
Farm value	1967=100	—	167.0	181.0	169.0	174.3	173.4
Farm-retail spread	1967=100	—	126.6	131.5	153.8	154.2	158.6
Farmers' share of retail cost	Percent	—	46	47	41	42	41
Farm Income: ³							
Volume of farm marketings	1967=100	—	116	114	113	113	122
Cash receipts from farm marketings	Million dollars	42,817	88,590	7,975	7,199	7,210	7,900
Crops	Million dollars	18,434	42,346	3,887	3,878	3,577	4,400
Livestock and products	Million dollars	24,383	46,244	4,088	3,321	3,633	3,500
Realized gross income ⁴	Billion dollars	49.9	97.0	101.8	—	—	102.1
Farm production expenses ⁴	Billion dollars	38.3	64.7	67.0	—	—	78.5
Realized net income ⁴	Billion dollars	11.6	32.2	34.8	—	—	23.6
Agricultural Trade:							
Agricultural exports	Million dollars	—	17,677	1,449	1,632	1,452	1,380
Agricultural imports	Million dollars	—	8,383	640	898	854	751
Land Values:							
Average value per acre	Dollars	⁶ 168	⁷ 247	—	—	—	⁸ 310
Total value of farm real estate	Billion dollars	⁶ 181.9	⁷ 259.5	—	—	—	⁸ 324.0
Gross National Product: ⁴							
Consumption	Billion dollars	793.9	1,294.9	1,308.9	—	—	1,415.4
Investment	Billion dollars	492.1	805.2	816.3	—	—	901.3
Government expenditures	Billion dollars	116.6	209.4	209.0	—	—	205.8
Net exports	Billion dollars	180.1	276.4	276.9	—	—	312.3
	Billion dollars	5.2	3.9	6.7	—	—	-4.0
Income and Spending: ⁵							
Personal income, annual rate	Billion dollars	629.3	1,055.0	1,080.4	1,159.5	1,167.2	1,178.0
Total retail sales, monthly rate	Million dollars	26,151	41,943	42,529	46,356	47,056	46,069
Retail sales of food group, monthly rate	Million dollars	5,759	8,811	8,992	10,090	10,261	10,370
Employment and Wages: ⁵							
Total civilian employment	Millions	74.4	⁹ 84.4	⁹ 85.1	⁹ 86.3	⁹ 86.2	⁹ 86.5
Agricultural	Millions	3.8	⁹ 3.5	⁹ 3.4	⁹ 3.4	⁹ 3.4	⁹ 3.5
Rate of unemployment	Percent	3.8	4.9	4.7	5.3	5.4	5.8
Workweek in manufacturing	Hours	40.6	40.7	40.8	40.2	40.1	40.1
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	4.07	4.13	4.41	4.44	4.52
Industrial Production: ⁵							
	1967 = 100	—	126	127	126	125	126
Manufacturers' Shipments and Inventories: ⁵							
Total shipments, monthly rate	Million dollars	46,449	71,398	72,146	84,019	85,760	86,106
Total inventories, book value end of month	Million dollars	84,655	120,870	116,114	136,731	139,727	142,389
Total new orders, monthly rate	Million dollars	46,763	73,836	74,024	87,517	90,393	87,366

¹ Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. ² Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. ³ Annual and quarterly data are on 50-State basis. ⁴ Annual rates seasonally adjusted third quarter. ⁵ Seasonally adjusted. ⁶ As of March 1, 1967. ⁷ As of March 1, 1973. ⁸ As of March 1, 1974. ⁹ Beginning January 1972 data not strictly com-

parable with prior data because of adjustment to 1970 Census data.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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